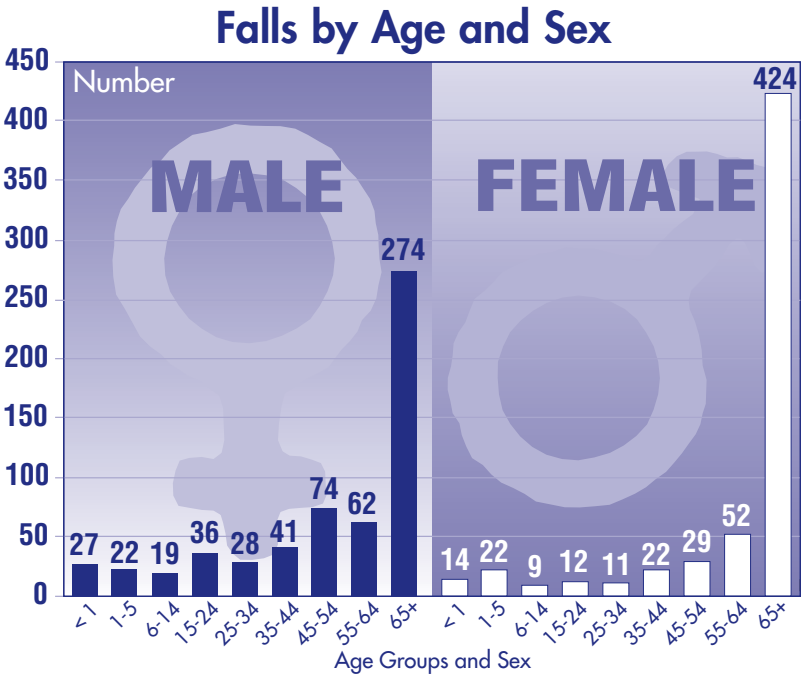
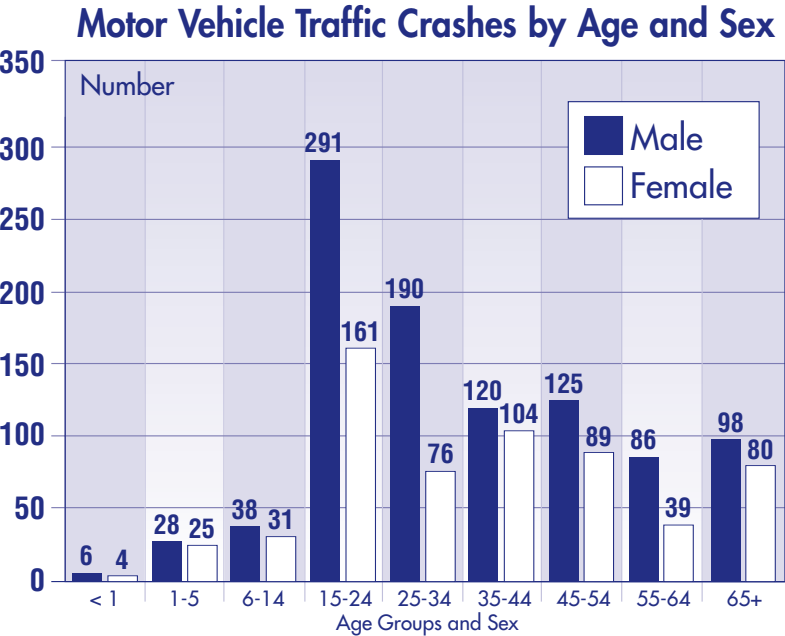


Overall females are less likely than males to suffer a fall related head injury through age 64. Of the total traumatic brain injuries due to falls, 59.3 percent were from the age group 65 years and older. Of the 595 females who suffered a head injury due to a fall, 71.3 percent were 65 years and older, compared to 47.0 percent of the 583 males.

Approximately 3.0 percent of the accidental falls causing a head injury were work related.

Of the 982 males who were involved in a motor vehicle accident, 29.6 percent were ages 15 to 24 years compared to 19.3 percent in ages 25 to 34 years. These two age groups accounted for almost half of the total motor vehicle injuries. For both males (29.6 percent) and females (26.4 percent), there were more injuries in the 15 to 24 year age group than any other group.

Work-related accidents accounted for 1.5 percent of the total motor vehicle accidents. Of the total head injuries from motor vehicle traffic accidents, 10.3 percent resulted in a severe brain injury; 36.6 percent was classified as moderate; 44.3 percent was classified as mild; and the severity for 8.8 percent was undetermined.



When all cases were included, 28.4 percent of the individuals with severe brain injuries were hospitalized more than seven days, compared to 30.0 percent of the individuals with injuries considered to be moderate, and 17.2 percent for those with mild injuries. For cases where severity was undetermined, 14.7 percent were hospitalized more than seven days.

When individuals who died are excluded from the analysis, 92.9 percent of people with severe brain injuries were hospitalized more than seven days, while the percent of individuals with lesser injuries showed little change.

Of the cases with hospital stays of more than 7 days, 57.2 percent were considered to have moderate brain injuries.

The length of stay could be affected by other injuries that occurred during the accident. The severity index by itself should not be used as a predictor or indicator of length of stay.

Severity of Injury by Length of Stay										
Length of Stay	Total	Died	Severe		Moderate		Mild		Undetermined	
			Total	Died	Total	Died	Total	Died	Total	Died
Less than 24 hrs.	133	133	82	82	19	19	10	10	22	22
1 Day	694	105	81	79	213	19	314	3	86	4
2 Days	570	31	21	19	216	10	266	1	67	1
3 Days	450	18	10	9	216	7	171	1	53	1
4 Days	318	21	9	9	169	9	106	2	34	1
5 Days	233	9	6	6	109	2	92	0	26	1
6 Days	179	10	3	3	101	6	55	0	20	1
7 Days	123	7	2	2	73	4	36	0	12	1
8 to 14 Days	474	35	29	12	250	19	159	3	36	1
15 to 21 Days	163	12	25	4	98	8	31	0	9	0
22 to 28 Days	92	8	15	3	56	2	15	2	6	1
29 Days or more	107	8	16	1	74	4	13	3	4	0
TOTAL	3,536	397	299	229	1,594	109	1,268	25	375	34

Tennessee Traumatic Brain Injury Newsletter was published by the Tennessee Department of Health, Division of Health Statistics, Cordell Hull Building, Nashville, Tennessee 37247

Marguerite Lewis, Director
For additional information please contact:
Glenda Polk, telephone (615) 532-7890

Tennessee Department of Health, Authorization No. 343115, 475 copies. This public document was promulgated at a cost of \$.74 per copy (03-06).

Tennessee Department of Health
Division of Health Statistics
Traumatic Brain Injury Registry
Cordell Hull Building, 4th Floor
425 5th Avenue North
Nashville, TN 37247

A traumatic brain injury is defined as an acquired injury to the brain caused by an external physical force that may result in total or partial disability or impairment.

Tennessee Department of Health
Policy, Planning and Assessment
Division of Health Statistics
January - June 2005
Provisional Data

Introduction

The enabling legislation establishing the traumatic brain injury registry was signed into law in May, 1993. As written, the initial legislation prohibited health care providers from reporting case information without written consent of the patient. An amendment was passed in May, 1996 resolving this issue. Data collection officially began with patients discharged during 1996. The hospitals report information on inpatients, with specific ICD-9 CM diagnosis codes, whose admission and discharge dates are different (where length of stay was 24 hours or more) and for those individuals who died. Patients seen in emergency rooms who were sent home the same day or length of stay was less than 24 hours are not included in the registry.

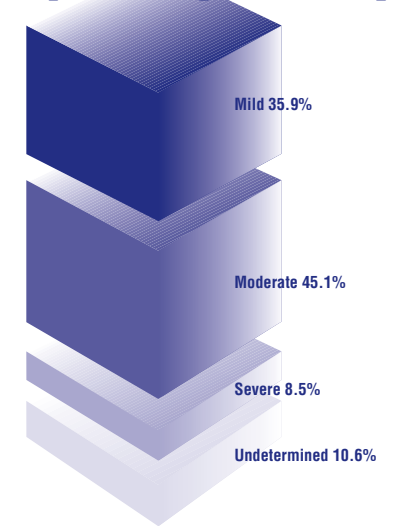
A traumatic brain injury is defined as an acquired injury to the brain caused by an external physical force that may result in total or partial disability or impairment.

Based on the ICD-9-CM diagnosis codes, 35.9 percent of all patients experienced a “mild” injury. The injuries considered “moderate” made up 45.1 percent while 8.5 percent were considered “severe”. Three hundred seventy-five (375) cases, or 10.6 percent had an insufficient clinical description and the severity for these cases was undetermined.

The severity index is based on the clinical diagnosis of the injury.

Excluding the patients that died, 71.2 percent of the patients were discharged for home care, which includes those requiring non-skilled or some degree of skilled assistance. This indicates a tremendous burden on the families and communities of the brain injured survivors.

Injuries by Severity



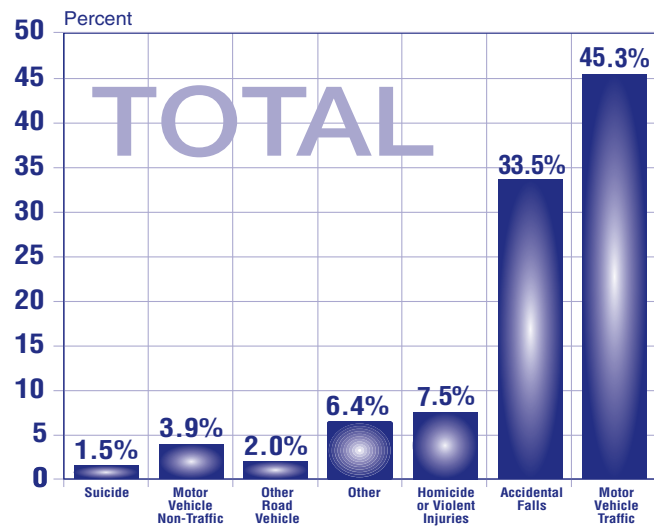
Of the patients with a severe traumatic brain injury 76.6 percent died. This category represents 57.7 percent of the total patients that died.

For patients with a moderate brain injury (excluding deaths) 65.1 percent were discharged for home care, which includes those requiring non-skilled or some degree of skilled assistance. Those discharged to residential facilities with or without skilled nursing services accounted for 14.3 percent and 16.0 percent were discharged to an inpatient rehabilitation facility.

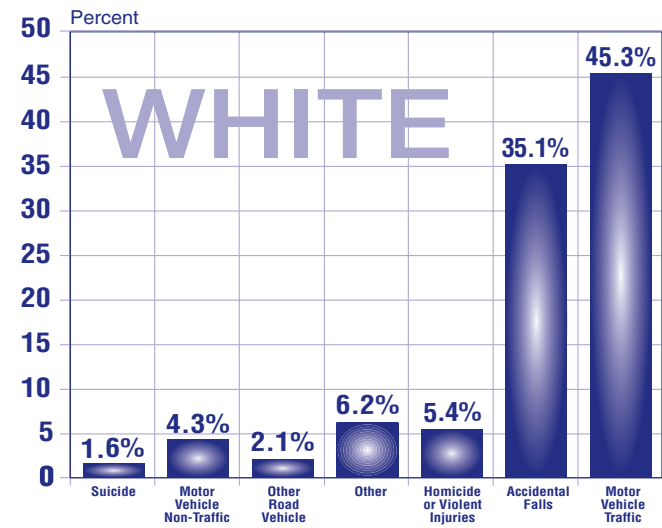
Excluding deaths, 81.6 percent of the patients with a mild brain injury were discharged to home care, which includes those requiring non-skilled or some degree of skilled assistance.

Hospital Discharge Status by Severity of Injury					
Discharge Status	Total	Severe	Moderate	Mild	Undetermined
Transferred to acute care hospital	42	4	22	14	2
Home - self care	1,956	7	851	888	210
Home - requiring non-skilled assistance	109	0	37	70	2
Home - health services or outpatient rehab	171	3	78	56	34
Residential facility w/o skilled nursing	30	1	17	3	9
Residential facility with skilled nursing	349	20	196	88	45
Inpatient rehab facility	401	33	238	101	29
Patient died	397	229	109	25	34
Other	81	2	46	23	10
Total	3,536	299	1,594	1,268	375

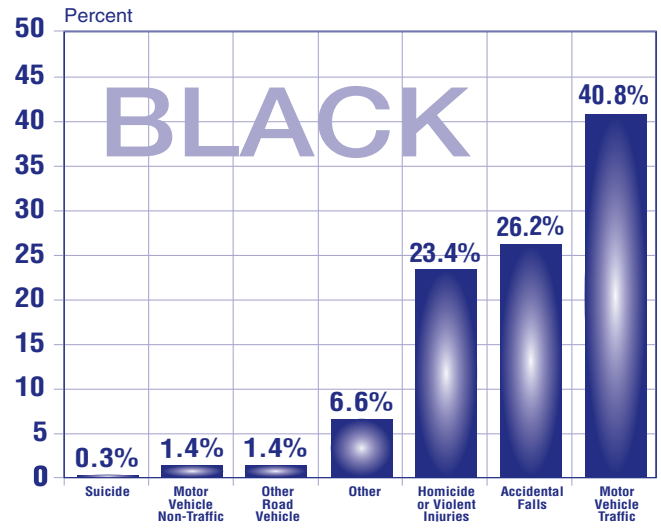
An external cause of injury permits the classification of environmental events, circumstances, and the conditions as the cause of injury. An external cause of injury was reported for 99.4% (3,515) of the 3,536 persons treated in Tennessee. The data presented by race represents 2,985 white and 363 black cases.



The leading cause of traumatic brain injuries, 45.3 percent (includes only cases with external cause of injury reported) was motor vehicle traffic accidents. Accidental falls accounted for 33.5 percent. Homicide or violent deaths, which includes injury undetermined whether accidentally or purposely inflicted, and legal intervention accounted for 7.5 percent of the total injuries.



For whites, the leading cause of traumatic brain injury was motor vehicle traffic accidents with 45.3 percent. The second leading cause of injury was accidental falls with 35.1 percent. The third leading cause was other accidents at 6.2 percent.



The leading cause of traumatic brain injury for blacks (40.8 percent) was motor vehicle traffic accidents. The second leading cause of injury was accidental falls with 26.2 percent. The third leading cause of injury for blacks was homicide or violent injuries with 23.4 percent.

Injuries by Age and Sex

For all ages except 65 and older, males are more likely to suffer a head injury than females. This is primarily due to traffic accidents. At age 65 and older, females experience more injuries due to falls. Further analysis of the data revealed that 27.7 percent of the (83) patients less than one year of age suffered a brain injury due to homicide or an injury purposely inflicted by other persons.

